

Iowa Department of Agriculture & Land Stewardship  
BILL NORTHEY, Secretary of Agriculture

STATE CLIMATOLOGIST OFFICE

# IOWA CLIMATE REVIEW

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OCTOBER 2016



The cooperation of the National Weather Service offices at Davenport, Johnston (Des Moines), La Crosse, Sioux Falls and Valley (Omaha) and their network of volunteer weather observers across Iowa in providing the data used in compiling this report is gratefully acknowledged.

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The climatic data used in this report are compiled from official records on file at the State Climatologist Office in Des Moines. Some of these data are of a preliminary nature and are subject to change without notice. Differences may exist in data values published here and those subsequently published in the U.S. Department of Commerce report *Climatological Data Iowa* due to use of differing quality control procedures.

## IOWA MONTHLY WEATHER SUMMARY – OCTOBER 2016

General Summary. Iowa temperatures averaged 55.2° or 4.4° above normal while precipitation totaled 2.10 inches or 0.51 inches less than normal. This ranks as the 23<sup>rd</sup> warmest and 70<sup>th</sup> driest October among 144 years of records. A warmer October was last recorded in 2007.

Temperatures. Warmer than normal weather was the rule for most of October as only six days (7<sup>th</sup>-8<sup>th</sup>, 11<sup>th</sup>-12<sup>th</sup> and 20<sup>th</sup>-21<sup>st</sup>) during the month averaged cooler than usual. Temperatures averaged ten or more degrees above normal on the 4<sup>th</sup>, 11<sup>th</sup>, 15<sup>th</sup>-17<sup>th</sup> and 28<sup>th</sup>-29<sup>th</sup> while the most abnormally cool day was the 13<sup>th</sup> at nine degrees below normal.

Burlington reported the highest temperature of the month with a 91° reading on the 17<sup>th</sup> when daily record high temperatures were recorded at numerous locations across the state. Meanwhile, Iowa's first freeze of the season was recorded at Little Sioux on the morning of the 7<sup>th</sup>. The first hard freeze of the fall occurred over much of the northwest two-thirds of Iowa on the morning of the 13<sup>th</sup> with the lowest temperature recorded at Battle Creek with 23°. However, by month's end 10% of the state, mostly in far eastern and southeastern Iowa, had yet to see a temperature of 32° or lower. Not since 1998 (32%) has more of the state entered November without a freeze.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 31% less than normal and 17% less than last year. Thus far this heating season (since July 1) heating requirements are running 21% less than one year ago at this time and 39% less than normal.

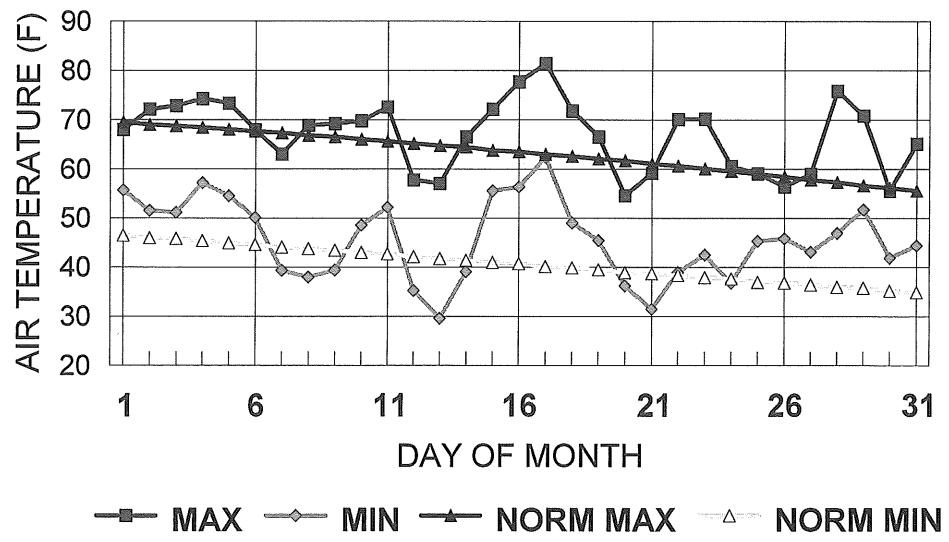
Precipitation. A drier than normal weather pattern prevailed across most of Iowa during October. Greater than normal rain totals were mostly confined to about the northern two or three tiers of counties. Northeastern Iowa, which had been plagued with numerous heavy rain events in recent months finally got a break from the wet weather from the last week in

September until October 25-26 when widespread rains of two to nearly three inches occurred. October rainfall was less than one-half of normal over much of central and south central Iowa with ISU Agronomy Farm in eastern Boone County reporting the least rain at 0.47 inches. Keokuk, thanks largely to a very isolated downpour of 4.98 inches of rain on the morning of the 5<sup>th</sup>, recorded the most rain during the month with 6.93 inches (however, the official Keokuk measurement site at the Lock & Dam partially missed this early month downpour and had a monthly rain total of 4.92 inches). River flows at month's end continue at well above seasonal normals along most of Iowa's major rivers with below normal flows confined to smaller watersheds in south central Iowa. While October precipitation was not excessive, it was enough to push the 2016 annual totals to new records at Osage and New Hampton. These two locations join Charles City, Decorah and Cresco which surpassed their previous annual records in September.

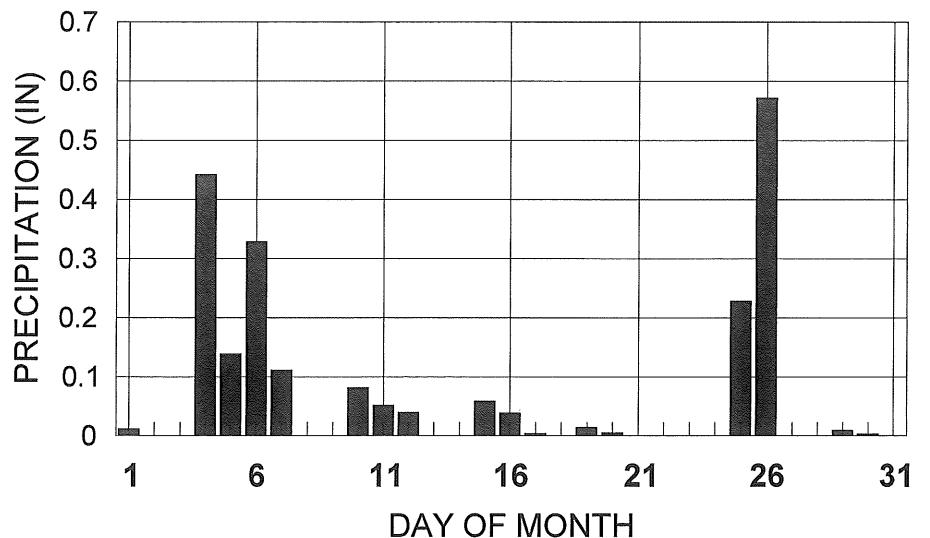
Station	2016 Total	Previous Annual Record	Period of Record
Charles City	54.82 inches	51.35 in 1999	133 years
Decorah	54.02 inches	48.74 in 2007	128 years
Cresco	53.51 inches	47.87 in 1951	110 years
New Hampton	53.14 inches	51.88 in 2007	110 years
Osage	48.97 inches	45.72 in 1999	112 years

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## IOWA DAILY MAX & MIN TEMPERATURES OCTOBER 2016 (SELECTED STATIONS)



## IOWA AVERAGE DAILY PRECIPITATION OCTOBER 2016 (SELECTED STATIONS)





OCTOBER 2016			MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																	IOWA CLIMATE REVIEW															
STATION	TEMPERATURE (F)															PRECIPITATION (inches)					NUMBER OF DAYS														
						NUMBER OF DAYS					HEATING DEGREE DAYS					CLOUDING DEGREE DAYS																			
	Avg	Avg	Dep	Ext	Ext	Max	Max	Min	Min	90+	32+	32-	0-	2016	OCT	OCT	16-17	NORM	OCT	OCT	2016	NORM	Dep	Ext	Total	Norm	Day								
	Max	Min	Mean	Norm	Max	Day	Min	Day														0.01+	0.10+	1.00+	Total	GND	Day								
<b>NORTHWEST DIVISION</b>																																			
Akron																																			
Cherokee	64.6	39.2	51.9	2.6	76	29	+	26	13	0	0	5	0	397	493	483	687	0	6	861	720	2.97	0.83	1.62	5	4	3	1	0.0	0					
Emmetsburg	64.8	41.5	53.2	5.0	77	3	28	14		0	0	4	0	361	525	435	727	0	4	884	631	3.30	0.82	1.83	5	6	3	1	0.0	0					
Estherville Airport	61.7	39.2	50.5	2.8	74	2	25	13		0	0	7	0	442	541	560	749	0	6	635	593	4.40		2.11	4	8	5	2	0.0	0					
Estherville 4 E	62.3	38.7	50.5	2.1	75	3	26	13		0	0	10	0	443	520	547	744	0	6	670	581	4.24	1.91	2.29	5	6	3	2	0.0	0					
Everly 3 WNW																						3.35		1.97	5	6	3	1	0.0	0					
Hawarden	63.8	39.1	51.5	2.5	77	29	28	13		0	0	7	0	413	501	499	681	0	5	909	764	1.95	-0.40	1.00	5	5	4	1	0.0	0					
Le Mars	65.1	40.1	52.6	2.9	77	4	28	13		0	0	6	0	378	482	462	656	0	6	877	777	2.18	-0.09	1.17	26	5	3	1	0.0	0					
Orange City																						2.40		1.10	5	10	3	1	T	0					
Pocahontas	65.3	41.4	53.4	3.6	79	18	27	21	+	0	0	4	0	354	480	429	648	0	9	908	773	2.66	0.56	1.73	5	5	3	1	0.0	0					
Pringhar	64.6	44.3	54.5	3.4	75	3	31	20	+	0	0	2	0	319	440	374	574	1	9	1018	865	2.77	0.58	1.35	5	7	5	1	0.0	0					
Remsen #2																						2.24		0.90	26	4	3	0	0.0	0					
Rock Rapids	63.6	39.6	51.6	3.5	77	29	28	14	+	0	0	6	0	410	529	497	730	0	5	828	718	1.69	-0.40	1.03	5	4	2	1	0.0	0					
Rock Valley																						1.80	-0.35	0.77	5	6	3	0	0.0	0					
Sanborn	62.6	40.8	51.7	3.5	75	3	28	14	+	0	0	7	0	403	525	505	725	0	5	769	653	2.55	0.37	1.33	5	7	3	1	0.0	0					
Sheldon	63.5	39.1	51.3	4.7	75	29	27	13		0	0	8	0	417	573	551	821	0	4	672	561	2.03	-0.30	0.84	5	7	3	0	0.0	0					
Sibley	62.0	39.7	50.9	2.9	76	3	27	14	+	0	0	5	0	431	532	543	755	0	5	717	569	2.16	0.17	0.93	5	7	3	0	0.0	0					
Sioux Center 2 SE	65.5	42.4	54.0	2.8	76	2	27	13		0	0	3	0	337	438	400	580	1	10	976	851	1.53	-0.84	0.56	7	7	4	0	0.0	0					
Sioux Rapids 4 E	63.7	43.1	53.4	3.9	75	28	27	13		0	0	2	0	354	489	447	677	1	7	760	666	3.82	1.32	1.86	4	8	5	1	0.0	0					
Spencer Airport	63.8	40.2	52.0	3.5	76	28	25	21	+	0	0	6	0	395	518	489	713	0	8	794	684	3.44		2.15	4	7	3	1	0.0	0					
Spencer 1 N	63.0	41.0	52.0	3.5	76	2	26	21	+	0	0	4	0	396	517	484	716	0	6	859	689	3.30	1.20	1.80	4	8	5	1	0.0	0					
Spirit Lake 4 W	62.0	43.2	52.6		76	2	29	13		0	0	2	0	376			458			0	836		3.42		1.60	4	7	4	1	0.0	0				
Storm Lake	63.8	42.7	53.3	3.4	75	29	28	13		0	0	2	0	357	475	434	640	0	7	830	737	3.92	1.55	2.66	5	6	3	2	0.0	0					
<b>NORTH CENTRAL DIVISION</b>																																			
Algona 3 W	63.8	40.5	52.2	3.5	78	18	28	21		0	0	5	0	391	512	482	712	0	5	707	601	3.15	0.85	1.50	5	4	3	2	0.0	0					
Allison	64.4	42.9	53.7	3.7	79	18	29	14		0	0	4	0	348	471	409	638	3	6	769	707	2.03	-0.34	1.60	26	5	3	1	0.0	0					
Britt																					526		734		5	620	2.18	0.06	1.06	26	4	3	1	0.0	0
Charles City	64.0	43.8	53.9	4.2	77	17	28	13		0	0	2	0	341	480	413	661	5	6	681	666	2.89	0.54	2.05	26	7	4	1	0.0	0					
Clarion	65.5	41.7	53.6	3.5	82	18	27	14	+	0	0	4	0	346	471		643	3	9	757	1.34	-0.92	0.67	26	5	4	0	0.0	0						
Dakota City	65.2	41.4	53.3	4.0	80	18	28	21	+	0	0	4	0	356	496	434	674	0	8	810	628	1.89	-0.32	1.15	5	4	3	1	0.0	0					
Forest City 2 NNE	62.8	39.7	51.3	2.4	77	18	25	22		0	0	4	0	417	505	510	695	0	6	604	648	3.35	1.02	2.15	26	4	3	1	0.0	0					
Hampton	66.1	41.3	53.7	4.1	79	18	28	13		0	0	4	0	343	484	391	664	1	8	834	679	2.69	0.31	2.25	26	6	3	1	0.0	0					
Kanawha																					1.54	-0.74	0.75	26	4	4	0	0.0	0						
Lake Mills																					4.28	1.89	2.70	26	6	4	1	0.0	0						
Mason City	64.0	41.0	52.5	4.2	77	18	28	14	+	0	0	4	0	379	523	452	741	0	5	689	578	1.97	-0.41	1.50	26	6	3	1	0.0	0					
Mason City Airport	63.8	40.0	51.9	3.7	77	17	25	13		0	0	7	0	402	525	491	738	4	6	697	616	2.16	-0.29	0.92	25	7	6	0	0.0	0					
Nashua 2 SW																					2.32		1.95	26	7	2	1	0.0	0						
Northwood							26	13	0						546		788		3		523	3.86	1.57	2.72	26	8	4	1	0.0	0					
Osage	62.9	41.0	52.0	3.1	75	5	28	13		0	0	5	0	398	504	478	700	1	5	665	616	2.99	0.54	2.24	26	6	4	1	0.0	0					
Saint Ansgar																					3.53		2.75	26	5	4	1	0.0	0						
Swea City 4 W	63.0	38.6	50.8	3.0	76	3	27	22	+	0	0	6	0	434	539	529	753	0	4	594	3.45	1.08	1.59	26	5	3	2	0.0	0						
<b>NORTHEAST DIVISION</b>																																			
Cascade	66.0	44.7	55.4	6.0	85	18	30	14	+	0	0	5	0	311	488	354	670	17	6	844	676	2.01	-0.79	1.16	26	8	5	1	0.0	0					
Cresco 1 NE	63.5	38.6	51.1	4.3	77	5	26	21		0	0	9	0	427	569		830	2	4	498	2.61	0.11	2.18	26	8	2	1	0.0	0						
Decorah	66.3	43.6	55.0	4.4	76	18	28	21	+	0	0	4	0	316	453	367	616	12	8	844	708	2.76	0.40	2.43	26	10	2	1	0.0	0					
Dubuque Lock & Dam 11	63.9	46.7	55.3	3.4	82	18	35	14		0	0	0	0	302	414	330	531	9	9	970	905	2.17	-0.58												

OCTOBER 2016															MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA														IOWA CLIMATE REVIEW		
STATION	TEMPERATURE (F)										PRECIPITATION (Inches)						NUMBER OF DAYS				SNOWFALL (inches)										
	AVG		AVG		DEP		EXT.		EXT.		NUMBER OF DAYS				HEATING DEGREE DAYS			COOLING DEGREE DAYS			DEP		EXT.			MAX ON					
	MAX	MIN	MEAN	NORM	MAX	DAY	MIN	DAY	90+	32-	32-	0-	2016	NORM	SEAS	SEAS	2016	NORM	SEAS	SEAS	TOTAL	NORM	DAY	DAY	0.01+	0.10+	1.00+	TOTAL	GND	DAY	
Dubuque Airport	64.6	45.8	55.2	5.2	82	17	30	13	0	0	1	0	308	471	366	649	14	6	787	643	2.51	-0.15	0.80	26	10	5	0	0.0	0		
Elkader 6 SSW	64.6	40.8	52.7	3.2	80	18	27	22+	0	0	9	0	378	489	471	695	7	7	595	640	1.96	-0.63	1.67	26	12	2	1	0.0	0		
Fayette	64.2	42.7	53.5	4.7	78	18	28	14	0	0	4	0	356	506	423	718	4	5	701	588	2.36	-0.21	1.96	26	7	2	1	0.0	0		
Guttenberg L & D 10	66.0	47.3	56.7	5.0	81	17	33	21+	0	0	0	0	268	422	296	548	17	10	1033	868	1.49	-0.92	1.35	26	9	1	1	0.0	0		
Ionia 2 W																				2.91		2.54	26	7	3	1	0.0	0			
Manchester #2	64.5	42.0	53.3	4.4	82	18	27	22+	0	0	4	0	367	505	446	716	10	6	688	607	2.02	-0.83	1.78	26	6	1	1	0.0	0		
New Hampton	63.5	41.1	52.3	4.1	77	18	27	14+	0	0	5	0	389	525	480	742	1	4	603	540	2.89	0.31	2.45	26	5	4	1	0.0	0		
Oelwein 1 E	65.1	43.4	54.3	5.0	80	18	29	13	0	0	4	0	334	499	390	658	9	11	796	594	0.98	-1.47	0.70	26	6	2	0	0.0	0		
Postville	63.3	41.4	52.4		75	12+	29	21+	0	0	4	0	385		457		0		665		2.63	0.18	2.20	26	8	3	1	0.0	0		
Stanley 4 W	63.6	41.3	52.5		79	18	25	14+	0	0	6	0	385		476		4		696		2.07		1.64	26	5	2	1	0.0	0		
Strawberry Point																				1.68		1.33	26	11	2	1	0.0	0			
Tripoli	65.2	43.0	54.1	4.9	80	18	29	22+	0	0	4	0	334	498	392	688	4	6	830	651	2.37	-0.22	1.97	26	5	3	1	0.0	0		
Waterloo Airport	66.6	43.5	55.1	4.8	81	17	27	21	0	0	3	0	310	465	358	623	12	9	869	799	2.48	0.00	1.71	26	9	3	1	0.0	0		
WEST CENTRAL DIVISION																															
Audubon	66.5	42.0	54.3	4.4	83	18	25	14	0	0	4	0	331	474	415	648	7	6	802	734	2.30	-0.40	1.49	5	4	2	1	0.0	0		
Battle Creek 3 NE	66.1	39.1	52.6		80	18	23	14	0	0	6	0	375		465		0		852		2.50		1.77	5	3	2	1	0.0	0		
Carroll	67.0	42.5	54.8	4.5	83	18	26	14	0	0	4	0	317	464	380	623	7	10	955	807	2.59	0.06	1.80	5	3	2	1	0.0	0		
Castana Exp. Farm	66.4	42.8	54.6	3.9	80	29+	28	14+	0	0	2	0	320	451	390	601	5	8	935	783	1.14	-1.23	0.66	7	6	2	0	0.0	0		
Denison	65.3	42.5	53.9	1.8	79	17	28	14+	0	0	3	0	340	413	430	535	5	13	859	948	2.76	0.35	2.30	5	4	2	1	0.0	0		
Guthrie Center	67.6	43.4	55.5	5.0	86	18	27	13	0	0	4	0	299	459	365	624	10	10	1007	815	1.08	-1.54	0.48	5	6	3	0	0.0	0		
Holly Springs 1 NW																				1.07		0.61	7	3	2	0	0.0	0			
Holstein	64.2	43.9	54.1		78	28+	27	13	0	0	3	0	336		418		2		873		3.10	0.83	2.38	5	4	2	1	0.0	0		
Little Sioux 2 NW	67.8	40.8	54.3		80	29+	25	13	0	0	7	0	324		400		2		994		1.99		1.02	5	5	2	1	0.0	0		
Logan	68.7	43.3	56.0	4.8	82	29+	28	14+	0	0	4	0	278	435	337	576	8	9	1117	927	1.90	-0.62	1.22	5	6	4	1	0.0	0		
Mapleton #2	66.2	40.2	53.2	3.1	79	29+	24	14+	0	0	6	0	359	469	446	640	1	8	875	794	1.20	-0.96	0.65	7	3	2	0	0.0	0		
Rockwell City	65.3	43.0	54.2	4.5	81	18	30	14+	0	0	4	0	329	479	397	646	1	6	881	714	1.80	-0.59	1.36	5	4	3	1	0.0	0		
Sac City	64.6	40.5	52.6	3.6	79	18	27	13	0	0	4	0	379	502	473	700	0	6	786	659	2.39	-0.02	1.92	5	4	2	1	0.0	0		
Sioux City Airport	66.7	43.1	54.9	4.2	79	3	25	13	0	0	3	0	304	453	354	600	0	8	1165	869	1.60	-0.53	0.75	4	4	3	0	0.0	0		
CENTRAL DIVISION																															
Ames Airport	67.7	44.4	56.1	5.3	84	17	27	13	0	0	2	0	282	452	329	596	13	10	971	752	0.79		0.26	26	7	4	0	0.0	0		
Ames 8 WSW	69.5	46.5	58.0	5.5	85	17	29	13	0	0	1	0	227	398	263	513	19	12	1103	878	0.47	-2.14	0.19	26	6	2	0	0.0	0		
Ames 5 SE	66.5	43.5	55.0	4.5	84	18	28	14	0	0	4	0	312	460		602	9	9		745	0.76	-1.81	0.21	7	7	4	0	0.0	0		
Ankeny	67.6	45.0	56.3	4.5	86	18	29	13	0	0	3	0	277	420	315	544	15	11	1061	946	0.82	-1.69	0.46	11	6	2	0	0.0	0		
Boone	66.9	43.5	55.2	4.6	84	18	28	13	0	0	4	0	301	454	363	611	6	9	888	742	0.94	-1.73	0.29	7	5	4	0	0.0	0		
Brooklyn																				1.57	-1.33	0.92	26	4	4	0	0.0	0			
Clutier																				1.30	-1.80	0.93	26	7	3	0	0.0	0			
Des Moines Airport	69.9	49.6	59.8	6.7	87	17	33	13	0	0	0	0	185	384	206	484	33	14	1447	1066	0.91	-1.73	0.57	10	7	1	0	0.0	0		
Des Moines Camp Dodge	67.6	47.6	57.6	5.4	85	17	30	13	0	0	2	0	234	411	271	515	16	15	1163	937	1.01	-1.53	0.44	6	7	4	0	0.0	0		
Eldora	65.5	42.3	53.9	4.0	83	18	28	14+	0	0	4	0	339	476	399	641	4	8	858	724	2.12	-0.43	1.61	26	5	3	1	0.0	0		
Fort Dodge 5 NNW	64.3	41.7	53.0	3.0	79	18	30	22+	0	0	4	0	362	473	451	640	0	8	700	755	1.93	-0.59	1.10	5	4	4	1	0.0	0		
Gilman																				1.30	-1.25	0.80	26	3	3	0	0.0	0			
Grinnell 3 SW	66.2	43.9	55.1	5.4	83	18	27	22+	0	0	4	0	313	483	374	672	11	7	803	669	1.90	-0.91	1.14	26	7	4	1	0.0	0		
Grundy Center	66.0	42.6	54.3	4.5	83	18	27	14+	0	0	4	0	334	478	391	659	8	8	830	700	1.71	-0.77	1.28	26	5	3	1	0.0	0		
Iowa Falls	65.4	41.9	53.7	3.8	80	18	28	14+	0	0	4	0	346	473	412	641	4	7	753	702	1.29	-1.21	0.80	26	7	4	0	0.0	0		
Marshalltown	66.8	44.1	55.5	5.5	84	18	29	14+	0	0	4	0	299	474	346	645	12	8	921	755	1.13	-1.52	0.69	26	5	3	0	0.0	0		
Marshalltown Airport	66.6	45.0	55.8	5.8	84	17	28	21+	0	0	2	0	289	473	337	633	13	10	923	728											



OCTOBER 2016		MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																				IOWA CLIMATE REVIEW									
		TEMPERATURE (F)										PRECIPITATION (inches)										NUMBER OF DAYS				SNOWFALL (inches)					
STATION	MAX	MIN	MEAN	NORM	DEP		EXT		EXT		NUMBER OF DAYS				HEATING DEGREE DAYS				COOLING DEGREE DAYS				DEP		EXT		NUMBER OF DAYS				
					MAX	DAY	MIN	DAY	90+	32-	32-	O-	2016	NORM	SEAS	SEAS	2016	NORM	SEAS	SEAS	TOTAL	NORM	DAY	DAY	0.01+	0.10+	1.00+	TOTAL	GND	DAY	
Centerville	69.3	46.5	57.9	5.1	87	18	30	22	+	0	0	4	0	252	390	295	509	36	10	1114	937	2.82	-0.10	1.23	6	10	5	1	0.0	0	
Chariton 1 E	68.0	44.2	56.1	4.9	86	18	26	14		0	0	4	0	289	436	350	591	19	8	937	795	2.33	-0.56	1.05	26	7	4	1	0.0	0	
Creston 2 SW	67.8	46.3	57.1	5.2	84	18	31	13		0	0	1	0	252	415	303	554	13	9	1002	850	0.90	-1.53	0.35	11	6	2	0	0.0	0	
Indianola 4 W	69.4	45.5	57.5	5.6	87	18	29	14	+	0	0	3	0	249	416	287	550	24	11	1153	867	0.80	-2.00	0.68	11	3	1	0	0.0	0	
Knoxville	67.6	46.8	57.2	4.3	86	18	31	14	+	0	0	3	0	252	389	291	500	19	12	1121	972	1.65	-1.11	0.62	11	6	3	0	0.0	0	
Lamoni	69.5	48.3	58.9	5.9	88	18	33	14	+	0	0	0	0	204	383	236	487	25	12	1379	1051	1.64	-1.70	0.72	7	8	4	0	0.0	0	
Lamoni Airport	69.6	49.5	59.6	6.6	86	17	31	13		0	0	1	0	194	384	232	484	33	13	1162	946	1.26	0.48	6	7	4	0	0.0	0		
Lorimor																						0.99	-1.35	0.47	5	3	2	0	0.0	0	
Mount Ayr	67.1	46.7	56.9	4.8	85	18	30	21		0	0	3	0	266	408	326	543	19	10	1016	836	1.04	-1.75	0.40	5	8	3	0	0.0	0	
Osceola	69.9	45.4	57.7	5.8	87	18	28	22	+	0	0	4	0	249	417	292	545	26	11	1120	903	0.83	-1.88	0.42	11	5	2	0	0.0	0	
Pella 1 S																						2.23	-0.57	0.91	26	10	4	0	0.0	0	
Rathbun Dam	68.6	47.3	58.0	5.1	88	18	32	21	+	0	0	3	0	242	387	281	496	30	13	1143	962	0.97	-2.09	0.32	5	9	4	0	0.0	0	
Winterset 1 S	68.6	45.6	57.1	5.4	82	18	29	14	+	0	0	2	0	251	422	300	566	14	11	976	814	1.49	-1.02	0.75	7	5	4	0	0.0	0	
<b>SOUTHEAST DIVISION</b>																															
Bloomfield 1 WNW															371		481		12		966		1.82	-1.16	0.95	7	5	4	0	0.0	0
Burlington Airport	69.4	49.5	59.5	4.1	89	17	34	13		0	0	0	0	207	323	237	394	43	24	1272	1206	2.39	-0.73	0.96	5	7	5	0	0.0	0	
Donnellson	70.5	48.4	59.5		90	18	33	22	+	1	0	0	0	212		235		49		1372		2.66	-0.36	1.74	6	8	5	1	0.0	0	
Fairfield	67.6	47.6	57.6	3.2	87	18	32	13		0	0	1	0	249	343	278	431	28	16	1170	1084	2.61	-0.63	1.65	7	6	4	1	0.0	0	
Fort Madison	69.2	51.0	60.1	4.9	86	17	35	21		0	0	0	0	188	320	211	390	42	16	1250	1200	3.01	0.03	1.10	5	7	6	1	0.0	0	
Keokuk Lock & Dam 19	68.8	50.5	59.7	4.7	89	18	37	22		0	0	0	0	199	327	221	406	43	17	1370	1143	4.92	1.59	2.92	6	8	6	1	0.0	0	
Keosauqua	69.3	46.8	58.1		90	18	30	21		1	0	3	0	248	355	274	452	39	16	1212	1075	1.18	-1.85	0.31	7	7	5	0	0.0	0	
Mount Pleasant 1 SSW	68.7	46.3	57.5	3.0	89	18	31	22	+	0	0	3	0	261	343	301	435	36	17	1079	1065	1.27	-1.73	0.55	7	6	4	0	0.0	0	
Oskaloosa	68.6	46.2	57.4	5.6	88	18	30	14	+	0	0	3	0	256	417	289	551	29	9	1141	854	1.95	-0.86	1.10	26	6	4	1	0.0	0	
Ottumwa Airport	70.3	47.5	58.9	6.5	89	17	28	13		0	0	2	0	226	403	266	524	45	11	1117	938	1.01	-1.82	0.35	5	8	5	0	0.0	0	
Salem 1 S																						1.39	0.38	6	7	4	0	0.0	0		
Sigourney					89	18	30	14	+	0					414		548		9		860		2.82	0.00	1.40	26	7	7	1	0.0	0
Washington	69.4	45.7	57.6	5.5	88	18	31	22	+	0	0	4	0	254	410	284	540	33	10	1083	873	1.87	-1.04	0.69	7	7	4	0	0.0	0	
<b>SUPPLEMENTAL STATIONS</b>																															
Moline Airport	69.6	48.2	58.9	5.7	89	17	33	21		0	0	0	0	232	378	250	482	49	14	1311	1003	2.67	-0.30	1.10	6	8	5	1	0.0	0	
Omaha Eppley AP	70.0	47.9	59.0	5.8	85	17	32	13		0	0	1	0	201	382	228	485	22	15	1476	1112	1.66	-0.49	0.61	4	6	4	0	0.0	0	
Sioux Falls WFO AP	63.3	41.7	52.5	4.6	78	28	31	24	+	0	0	4	0	383	536	461	740	2	5	879	690	3.09	0.92	2.53	4	9	2	1	T	0	
<b>DIVISIONAL AND STATE AVERAGES</b>																															
Northwest	63.7	40.9	52.3	3.3	79	18	25	21	+	0	0	5	0	388	504	478	692	0	6	822	701	2.76	0.52	2.66	5	6	3	1	T	0	
North Central	64.1	41.1	52.6	3.7	82	18	25	22	+	0	0	4	0	378	506	459	703	2	6	717	634	2.68	0.31	2.75	26	5	4	1	0.0	0	
Northeast	64.7	43.1	53.9	4.3	85	18	25	14	+	0	0	4	0	345	484	400	665	8	8	780	664	2.23	-0.35	2.54	26	8	3	1	0.0	0	
West Central	66.3	42.1	54.2	3.7	86	18	23	14		0	0	4	0	330	457	405	612	4	9	931	813	1.96	-0.45	2.38	5	4	2	1	0.0	0	
Central	66.9	44.2	55.6	4.9	87	17	25	22	+	0	0	3	0	297	452	348	604	11	9	947	786	1.26	-1.36	1.61	26	6	3	0	0.0	0	
East Central	67.5	45.9	56.7	5.0	90	18	27	14		0	0	2	0	276	423	312	558	26	10	1030	832	2.40	-0.49	1.50	7	8	4	1	0.0	0	
Southwest	69.2	44.9	57.1	4.7	87	18	27	14		0	0	3	0	253	403	299	518	14	12	1099	952	1.99	-0.62	1.90	5	6	3	1	0.0	0	
South Central	68.4	46.6	57.5	5.2	88	18	26	14		0	0	3	0	248	406	294	532	23	11	1086	892	1.41	-1.44	1.23	6	7	3	0	0.0	0	
Southeast	69.2	48.0	58.6	5.0	90	18	28	13		0	0	2	0	230	369	260	471	39	14	1207	1011	2.22	-0.84	2.92	6	7	5	0	0.0	0	
State	66.5	43.9	55.2	4.4	90	18	23	14		0	0	3	0	309	449	367	602	13	9	946	800	2.10	-0.51	2.92	6	6	3	1	T	0	

OCTOBER 2016		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW								
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg	
<b>NORTHWEST DIVISION</b>																																			
Cherokee	8	MAX	73	67	75	76	69	67	59	63	70	68	65	65	50	58	65	75	70	73	67	60	53	63	72	65	58	58	49	69	76	55	50	64.6	
		MIN	40	46	46	50	50	43	34	33	33	36	51	38	26	27	46	46	51	47	42	31	28	28	34	33	33	44	39	39	46	38	37	39.2	
Emmetsburg	8	MAX	74	69	77	74	73	69	60	57	65	67	68	72	50	58	67	74	74	76	68	59	53	61	72	63	60	59	48	61	76	57	49	64.8	
		MIN	44	49	50	51	53	47	37	37	35	35	52	38	29	28	41	49	50	48	45	33	30	31	42	34	33	45	44	44	49	41	43	41.5	
Estherville Airport	24	MAX	69	74	73	72	65	58	55	59	64	67	70	49	55	65	70	73	69	67	54	51	58	69	62	55	57	47	58	73	56	43	56	61.7	
		MIN	49	45	45	54	45	39	35	31	30	44	43	29	25	36	46	40	52	42	37	28	27	35	33	30	42	42	43	48	43	39	38	39.2	
Estherville 4 E	7	MAX	71	69	75	72	72	65	58	55	58	64	67	71	48	55	65	70	73	69	67	54	54	57	70	61	54	57	47	58	73	55	47	62.3	
		MIN	46	47	46	46	53	43	35	31	31	31	44	38	26	27	40	42	43	45	43	30	27	31	41	31	32	41	42	43	47	39	38	38.7	
Hawarden	7	MAX	74	69	76	76	66	68	56	57	67	70	70	52	47	58	70	71	69	65	66	54	51	65	72	63	58	60	55	66	77	60	50	63.8	
		MIN	39	47	46	53	46	44	33	33	33	33	49	39	28	29	43	43	44	48	41	32	30	31	34	32	32	44	42	42	45	38	38	39.1	
Le Mars	7	MAX	73	73	76	77	66	68	60	58	69	71	69	56	50	59	66	72	72	70	68	57	54	65	74	65	60	60	54	70	76	59	50	65.1	
		MIN	42	47	50	51	46	46	34	35	33	39	51	38	28	30	41	45	48	49	44	32	32	32	36	32	35	45	42	42	43	38	38	40.1	
Pocahontas	8	MAX	74	69	78	74	72	68	59	57	70	68	65	76	51	58	65	73	74	79	67	61	53	61	73	66	60	59	49	63	77	57	49	65.3	
		MIN	48	46	46	48	53	47	37	36	35	36	49	42	27	28	39	52	52	49	47	35	27	31	41	35	35	44	44	44	48	42	40	41.4	
Primghar	16	MAX	71	75	75	74	67	65	54	64	67	65	65	52	56	67	71	71	69	68	65	55	62	71	61	61	58	58	63	74	74	51	55	64.6	
		MIN	57	46	54	57	47	47	33	37	36	49	51	37	31	39	57	51	53	49	49	31	35	34	42	38	46	43	42	56	49	37	41	44.3	
Rock Rapids	8	MAX	76	76	77	77	68	67	56	54	60	69	69	58	46	58	69	68	74	67	65	53	50	63	73	61	60	60	50	65	77	58	49	63.6	
		MIN	43	48	47	52	48	44	34	34	34	34	49	39	28	28	42	42	44	49	41	31	30	31	32	33	34	44	44	44	50	37	37	39.6	
Sanborn	8	MAX	72	70	75	74	68	65	58	58	63	66	68	58	47	56	67	71	70	67	66	55	51	61	71	61	56	57	49	64	73	55	48	62.6	
		MIN	49	51	52	53	48	46	32	32	32	35	52	37	28	28	43	50	50	49	46	32	32	34	38	37	37	42	40	42	48	35	35	40.8	
Sheldon	7	MAX	73	72	74	74	66	66	58	54	64	68	70	59	48	57	70	72	72	68	66	55	54	63	71	63	57	57	50	66	75	57	50	63.5	
		MIN	39	44	44	52	46	44	33	32	32	34	50	39	27	28	41	43	52	48	39	30	28	30	30	36	36	45	43	43	50	37	37	39.1	
Sibley	7	MAX	74	73	76	74	67	65	56	53	58	65	68	60	48	56	69	68	73	66	65	53	50	60	69	61	55	57	47	60	73	55	49	62.0	
		MIN	47	47	48	50	48	45	34	33	34	37	51	37	27	27	41	49	50	48	41	30	29	30	34	37	35	42	40	42	48	35	35	39.7	
Sioux Center 2 SE	16	MAX	72	76	75	73	68	66	57	66	68	70	66	51	57	68	73	72	67	67	66	54	63	72	63	64	58	58	65	75	75	51	56	65.5	
		MIN	50	46	49	59	44	44	33	34	34	52	48	38	27	41	56	46	50	49	41	32	28	33	43	34	45	44	40	52	47	37	39	42.4	
Sioux Rapids 4 E	22	MAX	68	75	74	70	66	59	56	67	67	66	69	50	57	65	73	72	74	67	60	53	61	70	66	56	59	49	49	65	75	62	47	56	63.7
		MIN	48	47	50	59	51	43	36	37	36	47	50	35	27	37	58	52	53	49	44	33	29	36	41	36	44	43	40	49	47	38	41	43.1	
Spencer Airport	24	MAX	72	76	74	71	67	60	56	64	67	69	68	50	58	69	73	72	71	68	66	53	63	71	64	57	60	49	64	76	57	45	58	63.8	
		MIN	51	45	46	55	48	40	36	34	31	48	44	30	25	36	48	46	51	41	39	31	25	30	33	34	44	42	41	49	43	38	41	40.2	
Spencer 1 N	24	MAX	70	76	74	70	67	59	56	62	67	67	67	49	57	67	71	73	70	68	55	52	61	72	63	56	59	48	63	75	56	46	57	63.0	
		MIN	52	46	45	54	47	39	35	33	32	50	43	34	26	37	51	46	51	45	39	32	26	34	40	34	43	42	43	51	44	37	40	41.0	
Spirit Lake 4 W	24	MAX	69	76	73	69	66	57	55	57	66	68	66	49	57	67	72	72	66	67	54	53	61	68	63	55	58	47	60	74	56	44	57	62.0	
		MIN	56	50	54	59	47	39	35	37	33	51	43	34	29	41	52	49	55	48	40	31	33	37	40	40	43	43	43	53	42	37	44	43.2	
Storm Lake	8	MAX	72	66	74	73	68	67	59	56	70	66	63	69	50	57	64	73	70	75	66	60	52	60	70	65	57	57	52	66	75	60	46	63.8	
		MIN	46	51	52	53	52	47	34	35	37	36	52	40	28	32	43	52	52	51	48	35	35	35	42	37	36	45	44	41	53	41	38	42.7	
<b>NORTH CENTRAL DIVISION</b>																																			
Algona 3 W	6	MAX	72	69	74	74	72	67	61	56	64	65	67	76	49	55	64	73	73	78	68	61	52	56	69	65	57	59	46	59	75	56	47	63.8	
		MIN	43	48	48	48	53	47	38	37	33	33	47	42	30	29	38	48	48	50	46	33	28	29	34	34	32	42	43	43	49	42	39	40.5	

OCTOBER 2016		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW											
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg				
Allison	7	MAX	64	66	75	73	76	72	70	59	71	65	70	76	48	54	62	68	74	79	69	65	53	55	68	66	57	55	47	51	74	64	51	64.4				
		MIN	48	50	49	51	56	54	44	38	36	36	46	46	30	29	37	54	54	55	46	40	31	30	39	35	35	42	41	43	45	47	42	42.9				
Britt	7	MAX	M	M	M	71	74	M	63	M	M	M	M	79	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M					
		MIN	M	M	M	47	52	M	36	M	M	M	M	40	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M					
Charles City	22	MAX	65	75	72	75	70	69	66	70	64	70	75	60	53	62	69	73	77	68	64	52	53	68	63	56	54	46	46	73	63	52	61	64.0				
		MIN	54	47	49	56	56	49	40	36	36	45	54	39	28	36	58	50	61	50	44	38	29	37	40	36	41	41	40	42	47	40	40	43.8				
Clarion	7	MAX	69	68	76	74	75	70	66	58	72	67	68	77	50	56	64	71	76	82	70	62	54	57	71	67	58	60	47	58	77	62	49	65.5				
		MIN	47	47	48	50	57	51	40	36	34	34	51	43	27	27	38	51	52	51	45	35	29	30	36	34	37	43	44	44	48	45	40	41.7				
Dakota City	8	MAX	71	68	76	73	73	69	62	58	70	66	67	77	51	56	65	71	76	80	69	61	52	57	71	66	59	61	48	61	78	60	49	65.2				
		MIN	45	47	48	49	55	48	38	35	34	37	49	42	28	29	38	50	54	49	43	34	28	29	44	34	33	43	44	45	48	43	40	41.4				
Forest City 2 NNE	7	MAX	69	68	74	73	73	67	63	55	62	64	67	76	50	53	63	69	72	77	68	60	51	56	68	61	55	56	45	54	75	56	46	62.8				
		MIN	45	49	48	49	56	47	37	34	33	34	46	41	27	30	37	42	43	48	47	34	30	25	34	33	33	41	41	43	46	42	37	39.7				
Hampton	7	MAX	67	67	78	75	76	73	69	60	71	67	70	78	52	56	64	71	75	79	71	66	56	57	73	69	59	56	47	57	75	64	52	66.1				
		MIN	48	47	46	46	55	48	40	36	35	36	44	43	28	29	37	53	51	50	47	37	29	29	40	37	36	42	39	42	47	46	38	41.3				
Mason City	7	MAX	71	68	76	73	74	70	66	57	66	64	69	77	50	56	63	71	73	77	69	64	54	55	70	64	56	55	46	50	75	59	46	64.0				
		MIN	44	48	48	47	55	47	41	35	36	35	44	44	28	28	37	48	46	51	46	40	30	30	40	37	37	41	41	42	44	44	38	41.0				
Mason City Airport	24	MAX	69	76	74	75	68	65	57	68	65	69	76	50	54	63	71	74	77	69	64	53	56	70	64	57	57	46	53	75	59	48	56	63.8				
		MIN	48	44	44	57	50	43	34	32	31	41	47	30	25	33	53	43	58	46	41	30	26	37	38	32	41	41	36	43	42	35	40	40.0				
Northwood	7	MAX	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	74	47	51	60	69	71	73	66	57	49	53	66	59	54	51	44	M	M	57	44	M
		MIN	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	40	26	28	36	42	42	49	45	38	28	28	38	33	33	39	38	M	M	42	36	M
Osage	7	MAX	67	66	74	73	75	69	68	60	65	66	69	74	47	53	62	68	72	74	67	63	51	54	68	62	56	52	46	47	71	59	52	62.9				
		MIN	50	49	49	49	57	49	40	35	35	35	49	44	28	29	39	49	49	49	45	37	29	29	32	35	35	40	41	41	45	41	38	41.0				
Swea City 4 W	7	MAX	70	69	76	74	73	67	60	55	61	65	67	73	50	55	64	70	73	73	69	55	51	56	70	63	56	58	46	57	73	56	47	63.0				
		MIN	45	47	44	47	53	46	37	33	33	33	41	38	27	27	36	42	43	48	44	31	27	27	35	33	30	41	43	43	47	41	34	38.6				
NORTHEAST DIVISION																																						
Cascade	7	MAX	62	65	68	66	76	76	72	58	69	68	74	77	56	54	68	70	75	85	71	71	54	57	68	72	61	51	50	48	68	74	61	66.0				
		MIN	57	56	47	47	58	54	47	32	32	39	44	55	30	30	36	58	64	62	45	45	32	35	40	39	37	44	42	40	44	52	42	44.7				
Cresco 1 NE	7	MAX	65	68	75	74	77	71	70	58	63	64	71	75	47	53	61	68	74	74	70	68	54	55	70	66	60	48	45	45	70	61	49	63.5				
		MIN	51	44	42	42	56	43	40	31	30	31	46	46	27	27	36	49	49	47	41	36	26	27	35	31	30	39	37	37	44	43	33	38.6				
Decorah	16	MAX	64	72	73	76	75	71	69	61	62	72	76	76	53	61	68	73	73	76	69	65	55	68	67	63	57	50	46	69	71	63	60	66.3				
		MIN	57	47	44	56	63	47	45	32	34	41	56	44	28	33	58	48	68	51	41	38	28	39	36	31	33	41	39	42	47	47	37	43.6				
Dubuque Lock & Dam 11	6	MAX	64	63	65	69	74	73	70	57	61	63	74	76	60	57	65	68	75	82	69	66	52	52	65	71	55	51	47	46	66	67	57	63.9				
		MIN	56	58	52	51	59	56	50	40	40	43	46	55	37	30	36	53	61	69	49	45	37	33	40	42	40	41	42	41	43	51	45	46.7				
Dubuque Airport	24	MAX	65	67	66	74	74	70	65	67	65	73	74	60	54	65	68	74	82	72	69	52	53	64	72	58	50	48	47	65	70	58	62	64.6				
		MIN	58	50	47	56	55	56	42	36	41	46	55	37	30	36	53	61	69	49	45	37	33	40	42	40	41	42	40	42	54	43	44	45.8				
Elkader 6 SSW	7	MAX	63	63	71	73	75	74	71	59	69	64	73	76	51	54	65	67	74	80	70	66	54	55	68	70	59	51	47	47	69	68	57	64.6				
		MIN	56	47	44	44	56	48	46	32	32	34	38	49	27	27	29	60	61	55	41	42	27	34	32	30	38	40	39	44	49	36	40.8					
Fayette	7	MAX	62	62	74	73	76	73	70	59	68	65	71	76	49	53	64	66	73	78	70	67	53	55	68	69	59	51	47	47	71	67	53	64.2				
		MIN	54	49	48	48	56	52	44	35	36	40	45	48	29	28	37	59	60	54	45	39	29	29	37	36	36	41	39	39	43	48	40	42.7				



OCTOBER 2016		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Sac City	7	MAX	69	65	74	73	68	68	57	58	72	66	63	72	51	59	65	71	71	79	67	60	54	61	72	68	59	58	49	67	78	58	50	64.6
		MIN	45	47	46	47	52	47	35	35	35	36	48	40	27	28	39	53	56	48	43	35	28	29	41	34	34	45	38	38	46	41	40	40.5
Sioux City Airport	24	MAX	70	76	79	67	70	61	62	74	72	68	58	50	60	67	76	73	74	69	62	55	67	74	67	62	67	56	72	78	64	52	67	66.7
		MIN	54	49	50	54	48	42	35	37	38	50	47	31	25	40	50	44	52	45	47	34	31	34	41	33	51	46	42	52	47	42	46	43.1
CENTRAL DIVISION																																		
Ames Airport	24	MAX	69	75	73	77	71	71	62	71	69	70	75	56	56	67	69	77	84	72	71	55	58	73	72	61	59	54	61	79	73	56	62	67.7
		MIN	58	49	48	58	53	48	40	36	38	45	54	34	27	35	57	58	59	46	45	34	28	34	40	37	49	47	40	46	52	40	42	44.4
Ames 8 WSW	16	MAX	66	73	74	76	74	70	70	70	71	69	74	75	55	65	70	75	85	84	70	62	57	71	71	70	57	56	60	78	78	69	61	69.5
		MIN	57	52	51	57	55	53	39	38	38	46	53	41	29	37	60	59	66	52	50	37	33	36	43	36	47	48	43	45	53	45	43	46.5
Ames 5 SE	6	MAX	63	67	75	75	76	70	70	60	70	68	70	75	48	55	65	68	76	84	69	70	54	57	71	71	60	58	53	60	78	71	55	66.5
		MIN	49	51	48	48	57	54	42	38	37	40	48	46	29	28	37	58	58	55	46	40	30	30	38	38	38	48	41	39	45	48	43	43.5
Ankeny	8	MAX	65	66	73	71	78	72	72	62	71	68	72	77	47	56	66	69	78	86	71	71	54	58	72	73	61	58	56	61	80	74	58	67.6
		MIN	53	51	48	53	59	55	41	37	40	47	52	45	29	33	44	56	62	54	46	40	30	32	38	38	39	48	38	43	52	49	44	45.0
Boone	8	MAX	65	67	75	72	75	71	68	61	72	69	68	75	51	57	64	71	74	84	71	70	55	58	73	71	60	57	53	62	78	72	55	66.9
		MIN	49	50	50	51	56	53	38	38	38	38	51	44	28	29	39	56	60	51	46	38	29	30	38	38	38	47	44	43	50	46	42	43.5
Des Moines Airport	24	MAX	67	73	73	80	74	74	64	72	71	73	78	58	58	69	71	82	87	73	73	56	60	73	74	63	61	60	63	81	78	62	65	69.9
		MIN	60	56	54	61	60	50	43	43	44	50	57	40	33	43	63	60	64	56	50	39	35	42	49	43	50	49	44	50	56	47	47	49.6
Des Moines Camp Dodge	24	MAX	67	73	71	77	69	70	63	71	68	69	77	56	57	67	68	76	85	72	72	57	57	70	73	61	58	56	62	79	74	59	63	67.6
		MIN	58	52	55	60	58	46	40	42	42	52	55	38	30	41	62	58	62	51	47	36	32	41	46	40	49	47	43	47	53	47	47	47.6
Eldora	7	MAX	62	66	75	74	76	72	69	59	70	67	68	76	48	56	63	68	72	83	70	68	54	55	70	70	58	58	50	58	75	69	53	65.5
		MIN	49	51	49	49	55	52	40	37	37	36	45	44	28	28	38	60	59	51	47	38	29	29	38	38	35	41	37	38	45	46	42	42.3
Fort Dodge 5 NNW	7	MAX	68	67	73	72	71	66	62	62	69	64	66	75	49	54	63	71	75	79	68	61	51	57	68	67	57	59	49	61	78	62	49	64.3
		MIN	46	48	48	47	54	49	38	37	36	36	45	42	30	30	37	56	55	49	46	35	30	30	38	34	34	44	44	44	49	44	39	41.7
Grinnell 3 SW	7	MAX	63	65	71	70	77	73	72	61	69	68	67	75	48	55	63	69	75	83	71	71	54	55	68	72	59	58	56	57	75	75	57	66.2
		MIN	52	57	46	49	59	56	44	35	35	42	44	48	28	28	38	55	57	60	43	40	27	27	40	34	41	47	46	44	47	50	41	43.9
Grundy Center	8	MAX	63	67	75	73	76	71	71	59	71	67	70	77	48	55	64	68	75	83	70	69	55	56	71	69	58	58	49	56	75	71	55	66.0
		MIN	50	50	47	47	58	52	42	35	35	37	46	46	27	27	37	58	60	52	44	37	29	28	42	37	36	44	43	43	46	45	40	42.6
Iowa Falls	7	MAX	64	66	76	73	75	71	68	59	71	67	69	78	49	55	63	68	76	80	70	65	54	55	71	68	59	58	48	57	75	68	52	65.4
		MIN	49	48	48	48	57	50	40	36	36	36	45	44	28	28	38	55	57	51	45	36	29	29	40	38	37	43	37	40	45	46	39	41.9
Marshalltown	7	MAX	63	66	76	73	77	73	71	61	70	69	69	76	48	56	63	69	77	84	70	70	55	57	72	70	60	59	52	61	76	72	56	66.8
		MIN	51	54	51	50	58	54	44	38	38	38	47	47	29	29	38	58	60	56	45	39	31	30	42	38	37	47	41	39	47	48	42	44.1
Marshalltown Airport	24	MAX	67	75	73	77	70	71	61	69	66	70	76	57	55	63	69	76	84	70	70	55	55	71	70	59	59	52	58	75	72	57	63	66.6
		MIN	58	52	49	57	56	53	40	37	37	45	56	33	28	36	58	57	61	49	44	34	28	40	39	37	45	46	38	46	51	41	44	45.0
Newton	7	MAX	64	65	74	74	78	71	74	62	69	69	69	76	47	55	63	69	77	85	70	71	54	56	68	71	60	59	56	59	78	74	57	66.9
		MIN	50	53	50	50	56	56	42	39	39	42	46	45	30	30	36	58	58	57	50	39	33	33	41	39	39	46	42	42	46	48	45	44.5
Perry	7	MAX	67	67	76	73	77	72	70	62	72	70	70	77	51	59	65	70	77	86	70	70	55	62	74	72	62	59	55	64	80	73	56	68.2
		MIN	45	51	51	54	58	54	41	39	40	40	49	45	29	29	42	58	61	53	48	41	31	30	40	35	34	50	43	43	53	46	46	44.5
Toledo 3 N	7	MAX	64	65	73	72	77	72	73	60	70	68	69	75	48	58	63	69	76	84	70	69	53	56	70	70	59	59	51	57	75	71	56	66.2
		MIN	48	52	48	48	56	55	43	36	36	37	46	46	28	28	38	56	57	56	45	38	29	29	41	38	37	45	44	43	44	48	41	43.1

OCTOBER 2016				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
		OBS TIME		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Webster City		7 MAX	69	68	74	75	75	70	65	60	72	66	67	75	50	55	64	72	77	82	71	62	55	56	71	69	59	60	50	60	77	67	52	66.0	
		MIN	46	46	46	47	59	50	39	34	35	36	46	42	25	25	38	55	57	50	45	35	25	25	34	32	32	44	44	44	48	46	45	41.1	
EAST CENTRAL DIVISION																																			
Anamosa 3 SSW		6 MAX	64	67	70	66	76	76	72	60	69	69	73	75	60	56	63	70	75	84	70	72	54	55	67	72	60	52	51	46	69	74	61	66.1	
		MIN	54	54	46	46	58	54	47	37	36	40	46	55	32	32	37	58	63	62	46	45	33	32	39	41	39	44	41	40	42	50	40	44.8	
Belle Plaine		7 MAX	65	66	73	71	77	75	74	63	71	69	72	76	49	56	65	71	77	85	73	69	56	57	71	71	64	59	55	51	75	76	61	67.5	
		MIN	51	56	46	46	58	57	46	36	40	44	44	49	29	29	36	60	63	61	44	41	30	29	40	36	36	46	43	43	45	50	40	44.3	
Bellevue Lock & Dam 12		6 MAX	64	68	66	67	77	78	70	60	71	70	75	77	61	58	68	73	75	85	71	70	54	55	69	74	59	55	49	49	68	71	58	66.6	
		MIN	59	59	50	50	60	55	56	38	37	43	42	56	35	33	34	57	61	65	46	47	34	33	39	40	36	41	44	42	45	53	43	46.2	
Cedar Rapids Airport		24 MAX	64	70	69	77	76	73	67	70	68	72	76	64	55	65	71	77	85	72	69	53	54	67	71	59	55	53	50	74	75	60	66	67.0	
		MIN	59	53	47	55	60	58	41	37	42	43	56	35	29	34	56	60	68	50	47	35	30	42	39	37	43	47	41	41	57	41	41	45.9	
Cedar Rapids #1		17 MAX	65	70	70	77	77	74	71	72	70	72	77	76	56	66	70	78	84	83	72	66	56	68	74	67	57	52	50	70	74	70	64	69.3	
		MIN	58	53	45	55	62	56	46	36	39	45	55	46	29	34	56	62	68	59	45	41	29	39	40	36	40	45	41	41	57	51	42	46.8	
Clinton #1		18 MAX	68	66	66	77	76	73	71	68	67	74	76	74	55	67	75	78	87	85	69	64	53	68	74	69	55	52	51	68	76	70	64	68.9	
		MIN	59	58	59	59	63	57	49	39	44	46	58	50	33	37	54	64	69	65	47	48	35	39	41	39	42	45	43	42	64	52	43	49.8	
Coggon		6 MAX	63	63	71	68	75	74	71	59	68	67	71	75	50	54	64	69	76	83	70	70	54	54	66	71	58	52	50	47	69	71	58	64.9	
		MIN	48	51	44	44	55	53	46	34	39	38	43	50	29	28	32	58	62	60	42	42	29	28	37	36	35	43	40	40	43	50	40	42.5	
Davenport Airport		24 MAX	70	66	66	79	79	73	64	70	70	75	77	68	57	67	77	80	88	76	70	56	56	69	75	61	53	57	48	69	78	62	66	68.5	
		MIN	59	53	57	58	58	60	38	37	43	45	58	37	31	36	57	65	70	47	44	38	32	39	41	38	42	45	41	42	59	41	44	46.9	
Iowa City		7 MAX	64	65	70	68	78	79	74	61	71	70	74	77	56	57	66	74	79	87	73	69	56	55	69	74	61	58	58	51	73	78	61	67.9	
		MIN	53	58	46	48	58	57	47	36	36	43	42	55	32	31	35	60	61	64	45	44	32	33	39	42	43	44	47	43	43	43	53	41	45.5
Iowa City Airport		24 MAX	66	71	68	77	78	74	68	71	72	73	78	66	57	66	75	80	88	75	70	56	56	69	74	62	58	58	52	74	77	61	67	68.9	
		MIN	60	52	48	56	59	60	42	38	45	44	56	37	34	38	56	63	69	50	48	44	34	40	43	44	46	49	43	43	43	60	44	43	48.0
Le Claire L & D 14		6 MAX	68	71	70	70	79	79	71	61	70	70	73	76	65	58	66	74	79	87	74	69	55	55	69	75	62	53	56	51	68	74	61	68.0	
		MIN	52	58	59	60	60	60	60	43	43	44	49	56	38	37	42	57	64	67	51	50	37	36	43	44	43	45	44	43	44	43	45	49.3	
Lowden		24 MAX	69	70	67	79	79	74	67	71	69	76	78	66	59	68	75	80	87	77	69	56	57	70	75	61	54	52	48	70	80	63	66	68.8	
		MIN	58	50	46	55	54	58	39	36	42	41	56	35	30	34	56	64	68	49	49	38	31	39	39	36	38	45	41	39	60	45	44	45.6	
Maquoketa 4 W		7 MAX	65	67	66	67	78	76	73	59	69	66	74	77	59	56	67	73	77	87	72	69	53	54	66	73	58	51	49	50	68	74	60	66.2	
		MIN	56	53	45	46	59	54	48	36	36	42	42	55	30	31	32	56	62	65	44	46	32	31	39	40	39	43	41	38	40	51	42	44.3	
Muscatine		6 MAX	66	66	69	68	80	80	74	61	72	70	74	79	63	59	66	77	83	90	74	69	57	56	71	76	62	60	60	50	71	80	60	69.1	
		MIN	54	58	54	54	61	60	49	38	39	46	46	58	32	33	33	59	66	65	47	47	34	34	42	43	46	45	43	45	54	41	47.4		
Vinton		7 MAX	62	64	73	68	74	73	70	60	69	65	70	75	48	54	62	68	74	83	69	69	53	54	68	70	58	54	50	51	73	71	59	64.9	
		MIN	55	51	46	46	56	54	44	34	34	38	44	47	28	27	37	57	59	57	43	39	29	29	38	36	35	43	40	39	43	48	40	42.5	
Williamsburg 1 E		7 MAX	64	65	70	70	79	77	74	62	70	70	72	78	50	57	66	71	78	87	72	67	54	56	70	73	61	58	56	49	76	77	61	67.4	
		MIN	52	58	46	46	58	58	46	36	36	41	45	45	29	29	38	60	63	61	45	42	31	30	40	39	38	45	40	41	45	51	41	44.4	
SOUTHWEST DIVISION																																			
Atlantic 1 NE		7 MAX	74	67	75	77	71	73	66	64	73	73	66	77	54	60	66	72	82	87	72	73	58	63	74	73	64	66	64	72	81	74	59	70.0	
		MIN	41	58	46	46	56	51	38	37	40	39	56	46	28	27	48	56	59	56	47	42	30	30	35	35	49	37	38	53	46	45	43.5		

OCTOBER 2016				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW					
STATION	OBS TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Bedford	7 MAX	70	64	67	74	76	73	74	64	71	73	65	74	52	59	65	65	82	85	74	71	56	62	71	72	64	68	63	69	80	79	57	69.0
	MIN	49	57	52	53	54	54	38	39	41	45	53	45	32	32	44	63	64	53	50	42	34	34	36	41	42	51	41	41	52	46	43	45.8
Clarinda	6 MAX	71	65	68	74	69	73	72	62	71	73	64	75	53	59	64	66	81	85	70	71	57	62	71	72	62	68	61	68	80	77	54	68.3
	MIN	45	57	47	46	54	53	41	38	40	43	54	48	31	29	46	53	58	52	46	44	32	31	35	37	37	52	38	38	53	47	46	44.2
Glenwood	6 MAX	74	67	73	77	66	72	63	64	73	73	62	75	50	59	66	72	82	86	70	71	56	64	72	70	63	70	63	74	83	75	53	69.0
	MIN	44	54	51	51	54	52	38	36	44	43	54	46	30	28	49	56	59	58	49	46	34	33	38	42	40	51	41	39	57	47	44	45.4
Greenfield	8 MAX	68	67	76	74	73	73	76	63	70	71	67	75	51	57	63	65	79	84	71	69	56	60	71	72	63	62	61	66	78	75	55	68.1
	MIN	50	57	49	53	56	54	38	38	40	41	53	43	29	32	46	54	60	53	48	40	32	32	40	38	38	46	40	40	52	44	44	44.5
Oakland	7 MAX	74	66	72	76	67	71	63	61	71	73	64	77	50	59	64	71	80	84	70	70	55	63	72	70	62	67	60	70	81	74	54	68.1
	MIN	47	56	53	52	54	53	36	35	41	41	53	43	31	31	47	57	57	53	52	41	35	34	41	40	39	49	41	40	54	44	43	44.9
Red Oak	7 MAX	75	67	71	76	70	74	71	65	72	74	64	76	53	60	66	69	82	87	72	72	59	64	72	74	64	69	65	71	83	79	56	70.1
	MIN	46	57	51	50	55	55	39	38	43	43	54	47	30	29	44	55	60	52	49	44	33	33	38	39	38	52	41	40	55	48	46	45.3
Shenandoah	8 MAX	75	67	72	77	69	75	74	65	73	74	63	77	54	60	66	69	83	87	73	72	59	64	74	73	65	71	62	72	82	81	56	70.5
	MIN	45	57	52	56	54	53	37	37	42	43	55	45	30	30	48	55	60	54	49	43	34	34	38	37	38	54	41	41	58	47	46	45.6
Sidney 1 SSE	7 MAX	74	65	72	77	66	73	72	63	72	74	64	76	50	59	66	69	83	87	70	71	57	64	73	71	63	72	62	73	83	80	53	69.5
	MIN	48	54	51	51	51	51	36	36	44	42	53	45	31	31	47	56	57	55	51	43	36	36	42	42	39	53	40	40	56	44	43	45.3
SOUTH CENTRAL DIVISION																																	
Albia 3 NNE	7 MAX	62	63	65	67	78	74	72	60	69	68	67	76	47	56	64	71	80	87	72	70	53	57	69	73	61	54	64	59	78	78	55	66.7
	MIN	48	55	48	53	58	58	45	43	43	43	55	46	31	31	41	64	66	62	48	43	32	32	43	40	39	47	46	45	47	51	43	46.6
Allerton	8 MAX	64	64	66	71	78	78	74	60	69	73	70	76	50	57	66	69	81	87	72	69	52	59	70	73	62	63	64	60	80	80	55	68.1
	MIN	48	57	52	55	58	60	44	41	40	42	53	50	31	31	43	62	65	61	51	43	34	32	40	40	40	45	45	45	49	50	44	46.8
Beaconsfield	7 MAX	67	65	67	75	76	73	73	60	69	72	67	76	47	57	63	68	81	85	75	70	53	59	70	71	63	63	65	64	79	79	53	67.9
	MIN	47	57	52	51	58	58	42	40	42	42	53	47	33	33	44	62	62	57	52	42	37	37	37	37	40	47	46	46	52	50	43	46.6
Centerville	7 MAX	65	66	69	75	82	79	74	61	70	70	67	76	54	60	67	72	83	87	74	70	54	59	70	75	65	61	65	61	79	80	57	69.3
	MIN	49	58	50	54	58	60	46	39	39	41	52	54	30	30	41	64	69	63	44	44	30	30	40	39	41	47	46	43	44	53	42	46.5
Chariton 1 E	7 MAX	63	66	68	71	78	75	74	62	70	71	68	76	49	58	66	69	82	86	72	70	52	59	70	72	62	60	64	61	80	77	56	68.0
	MIN	42	57	46	47	58	57	44	44	39	43	52	49	27	26	38	58	63	56	42	42	27	27	39	34	33	47	46	43	52	50	43	44.2
Creston 2 SW	7 MAX	67	64	69	74	75	74	73	63	69	69	68	75	49	57	62	66	80	84	71	69	55	59	70	71	65	65	63	65	78	76	57	67.8
	MIN	52	56	52	52	55	55	39	39	43	43	54	46	31	33	45	57	62	57	53	41	34	34	39	40	41	46	45	45	53	47	46	46.3
Indianola 4 W	7 MAX	65	67	72	74	80	76	75	63	72	71	72	79	48	59	69	70	83	87	71	71	54	62	72	73	64	62	59	63	81	78	59	69.4
	MIN	50	56	50	54	57	55	42	41	39	42	53	46	29	29	48	56	61	58	45	42	30	37	42	35	37	46	40	41	57	49	45	45.5
Knoxville	8 MAX	63	65	72	70	78	74	74	61	69	69	68	77	48	57	65	69	80	86	71	69	53	58	70	72	61	61	63	61	78	77	57	67.6
	MIN	52	56	51	54	58	57	43	43	43	44	52	48	31	31	43	61	63	60	49	41	32	33	43	42	43	46	45	44	52	48	44	46.8
Lamoni	7 MAX	69	67	69	75	80	78	75	63	72	75	67	79	50	60	67	69	68	88	73	72	55	61	73	75	65	65	66	66	81	81	52	69.5
	MIN	50	58	56	55	59	60	44	43	44	45	54	50	33	33	46	64	66	59	51	44	35	35	39	41	41	50	47	47	50	52	47	48.3
Lamoni Airport	24 MAX	67	69	75	78	76	73	62	69	71	67	77	65	58	66	69	82	86	74	72	55	59	70	74	64	66	64	66	80	78	57	70	69.6
	MIN	57	59	54	59	59	50	43	43	43	53	54	36	31	42	63	65	68	54	49	40	35	40	49	40	48	50	48	50	57	46	50	49.5

OCTOBER 2016		DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																										IOWA CLIMATE REVIEW									
STATION	OBS	TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg			
Mount Ayr	8	MAX	66	64	66	73	77	73	71	60	69	70	64	74	48	56	64	68	80	85	70	68	54	58	69	71	62	65	64	64	78	76	52	67.1			
		MIN	56	57	50	58	57	59	40	38	38	38	54	44	31	32	49	59	64	54	48	40	30	36	39	41	44	49	46	47	58	49	42	46.7			
Osceola	8	MAX	68	71	71	74	78	78	75	62	71	73	73	77	48	60	66	70	83	87	72	72	53	61	72	73	65	64	66	64	82	79	58	69.9			
		MIN	46	58	48	48	60	57	42	38	40	41	53	48	28	28	46	58	63	56	44	42	28	28	42	38	37	47	46	46	56	49	45	45.4			
Rathbun Dam	7	MAX	68	65	68	71	78	78	74	60	69	70	67	76	52	58	66	72	82	88	74	70	54	59	70	75	63	60	64	59	80	79	57	68.6			
		MIN	52	57	51	56	58	60	45	41	42	43	53	50	32	32	41	64	66	62	52	43	32	35	40	40	42	47	45	45	46	52	42	47.3			
Winterset 1 S	7	MAX	67	70	70	72	76	72	73	63	70	72	72	77	48	58	69	71	82	82	73	72	55	60	72	74	62	61	59	62	81	76	57	68.6			
		MIN	47	57	47	54	54	54	39	40	42	42	48	40	29	29	43	63	60	57	50	42	34	37	42	37	43	50	44	44	51	48	47	45.6			
SOUTHEAST DIVISION																																					
Burlington Airport	24	MAX	66	68	71	78	80	72	65	69	71	75	77	67	56	66	79	81	89	75	68	57	56	69	76	62	58	61	56	75	79	62	68	69.4			
		MIN	58	57	57	57	61	63	44	40	46	48	55	41	34	39	57	66	68	53	51	43	35	39	46	41	45	49	46	45	59	46	45	49.5			
Donnellson	7	MAX	67	67	70	72	82	82	72	62	72	73	75	79	62	59	66	80	84	90	76	68	58	59	71	77	65	57	64	61	79	80	58	70.5			
		MIN	50	58	58	59	57	61	47	43	43	47	51	55	35	35	41	62	65	69	48	46	33	33	40	39	38	48	47	45	45	55	46	48.4			
Fairfield	8	MAX	65	66	69	71	78	78	73	59	69	67	67	79	53	57	64	76	79	87	71	67	53	55	69	73	62	56	64	58	77	78	57	67.6			
		MIN	53	59	53	58	60	58	46	41	44	44	49	53	32	37	41	61	65	61	47	43	33	36	43	41	41	46	47	45	46	51	42	47.6			
Fort Madison	24	MAX	66	69	70	78	79	72	67	67	70	71	76	68	58	65	79	81	86	76	67	58	57	67	77	62	57	62	57	73	79	63	67	69.2			
		MIN	60	59	60	60	63	61	47	44	49	49	56	43	36	43	57	64	67	58	53	42	35	42	47	43	47	49	48	46	59	49	46	51.0			
Keokuk Lock & Dam 19	6	MAX	65	66	68	70	78	79	72	60	70	70	72	77	63	56	65	79	82	89	72	66	56	58	69	75	62	58	65	57	78	79	58	68.8			
		MIN	55	55	58	60	59	62	50	43	43	49	51	55	39	38	42	61	65	69	55	53	38	37	44	48	47	46	49	45	45	58	47	50.5			
Keosauqua	7	MAX	66	66	69	71	80	79	73	61	70	69	70	79	53	57	64	79	84	90	75	68	56	58	72	77	63	58	65	60	79	79	57	69.3			
		MIN	49	59	53	57	58	59	46	39	39	40	52	53	31	33	40	62	66	64	44	43	30	31	41	38	39	49	46	45	47	54	43	46.8			
Mount Pleasant 1 SSW	7	MAX	66	64	68	68	79	79	72	62	70	69	71	77	61	61	64	77	80	89	76	69	55	54	71	75	63	57	63	58	76	79	56	68.7			
		MIN	49	58	56	56	58	61	46	37	37	46	47	55	31	35	37	58	65	66	46	43	31	31	38	39	42	45	43	43	54	44	46.3				
Oskaloosa	7	MAX	66	66	72	71	79	78	75	62	70	72	68	77	49	58	65	71	81	88	73	72	53	58	70	73	64	59	64	60	78	78	57	68.6			
		MIN	50	58	49	55	60	59	45	39	39	42	46	49	30	30	40	62	64	61	48	42	32	34	42	39	39	48	46	45	48	50	42	46.2			
Ottumwa Airport	24	MAX	68	71	73	79	79	75	68	71	70	68	78	65	58	66	74	82	89	75	71	56	59	70	75	63	57	66	60	80	80	59	73	70.3			
		MIN	59	51	50	57	62	60	43	40	41	46	57	35	28	39	60	67	70	51	47	38	29	42	43	38	44	48	45	45	56	40	43	47.5			
Sigourney	7	MAX	64	67	70	70	78	79	74	62	70	71	67	79	51	59	65	71	79	89	M	M	53	M	M	M	M	M	M	M	M	M	M	M	M	M	M
		MIN	49	57	52	52	56	58	43	40	40	42	46	50	30	30	38	59	64	62	M	32	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
Washington	7	MAX	67	67	71	71	79	80	74	63	71	71	71	78	54	58	66	75	79	88	76	70	59	59	70	76	63	58	66	56	80	78	58	69.4			
		MIN	50	56	48	48	59	57	47	37	37	42	42	54	31	31	36	60	64	63	44	43	32	31	40	38	37	45	51	43	45	58	47	45.7			
SUPPLEMENTAL STATIONS																																					
Moline Airport	24	MAX	71	68	68	79	80	74	66	71	72	74	78	68	59	68	77	81	89	77	71	57	57	69	76	63	57	59	50	70	79	62	68	69.6			
		MIN	61	58	56	61	57	61	42	39	46	42	58	44	34	34	57	68	71	50	46	44	33	38	42	39	39	47	40	39	62	43	43	48.2			
Omaha Eppley AP	24	MAX	70	73	79	67	73	62	65	75	75	62	75	52	60	65	74	83	85	72	72	58	66	74	71	65	71	68	76	83	75	55	69	70.0			
		MIN	55	58	54	62	51	43	38	44	41	55	50	35	32	44	58	60	59	49	50	41	37	42	44	37	51	48	45	55	51	45	50	47.9			
Sioux Falls WFO AP	24	MAX	70	76	77	65	67	55	55	60	69	71	56	45	59	74	69	74	69	67	53	51	66	71	60	58	59	55	63	78	59	45	65	63.3			
		MIN	46	45	56	55	45	39	35	34	33	55	44	31	31	45	45	40	53	41	36	32	33	34	41	31	47	46	46	50	42	38	45	41.7			







OCTOBER 2016				DAILY NEW SNOWFALL FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME) AND TOTAL DEPTH OF SNOW ON GROUND (INCHES)												IOWA CLIMATE REVIEW																		
STATION	OBS	TIME	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
NORTHWEST DIVISION																																		
Orange City	7	SNOWFALL	T															T	T															
SUPPLEMENTAL STATIONS																																		
Sioux Falls WFO AP	24	SNOWFALL	T															T																
			SNOW ON GROUND																															

OCTOBER 2016		STATION INDEX			OWA CLIMATE REVIEW					OCTOBER 2016		STATION INDEX			OWA CLIMATE REVIEW				
STATION NAME	DIV	COUNTY	COORDINATES			ELEV (FT)				STATION NAME	DIV	COUNTY	COORDINATES			ELEV (FT)			
			LATITUDE		LONGITUDE								DEG MIN SEC	DEG MIN SEC	DEG MIN SEC				
			DEG	MIN	SEC								DEG	MIN	SEC				
Akron	NW	Plymouth	42	49	37	96	33	21	1125	Decorah	NE	Winneshiek	43	18	15	91	47	43	860
Albia 3 NNE	SC	Monroe	41	3	56	92	47	12	890	Denison	WC	Crawford	42	2	11	95	19	44	1401
Algona 3 W	NC	Kossuth	43	4	6	94	18	19	1230	Des Moines Airport	C	Polk	41	32	2	93	39	11	957
Allerton	SC	Wayne	40	42	15	93	22	11	1110	Des Moines Camp Dodge	C	Polk	41	44	12	93	43	25	959
Allison	NC	Butler	42	45	13	92	48	8	1048	De Witt	EC	Clinton	41	48	39	90	32	26	685
Ames Airport	C	Story	41	59	26	93	37	8	955	Donnellson	SE	Lee	40	38	45	91	33	50	705
Ames 8 WSW	C	Boone	42	1	15	93	46	27	1099	Dubuque L & D 11	NE	Dubuque	42	32	24	90	38	46	620
Ames 5 SE	C	Story	41	57	7	93	33	56	870	Dubuque Airport	NE	Dubuque	42	23	52	90	42	13	1056
Anamosa 3 SSW	EC	Jones	42	5	35	91	18	7	906	Eldora	C	Hardin	42	21	55	93	5	50	1144
Ankeny	C	Polk	41	43	6	93	34	27	940	Elkader 6 SSW	NE	Clayton	42	46	31	91	27	13	788
Atlantic 1 NE	SW	Cass	41	25	3	95	0	14	1148	Emmetsburg	NW	Palo Alto	43	6	9	94	41	0	1260
Audubon	WC	Audubon	41	42	25	94	55	20	1280	Estherville Airport	NW	Emmet	43	24	4	94	44	50	1317
Battle Creek 3 NE	WC	Ida	42	22	12	95	34	30	1380	Estherville 4 E	NW	Emmet	43	24	13	94	44	50	1320
Beaconsfield	SC	Ringgold	40	48	25	94	2	51	1215	Everly 3 WNW	NW	Clay	43	11	0	95	22	59	1365
Bedford	SW	Taylor	40	40	27	94	43	28	1190	Fairfield	SE	Jefferson	41	1	16	91	57	19	746
Belle Plaine	EC	Benton	41	52	53	92	16	35	810	Fayette	NE	Fayette	42	51	1	91	48	57	1130
Bellevue L & D 12	EC	Jackson	42	15	40	90	25	23	603	Forest City 2 NNE	NC	Winnebago	43	17	4	93	37	50	1276
Bloomfield 1 WNW	SE	Davis	40	45	35	92	26	22	812	Fort Dodge 5 NNW	C	Webster	42	35	1	94	12	2	1140
Boone	C	Boone	42	2	30	93	53	26	1035	Fort Madison	SE	Lee	40	37	16	91	19	34	530
Britt	NC	Hancock	43	6	6	93	48	5	1240	Gilman	C	Marshall	41	52	41	92	46	43	1040
Brooklyn	C	Poweshiek	41	44	22	92	26	24	910	Glenwood	SW	Mills	41	3	6	95	44	57	1060
Burlington Airport	SE	Des Moines	40	46	51	91	7	9	692	Greenfield	SW	Adair	41	17	53	94	27	22	1330
Carroll	WC	Carroll	42	3	54	94	51	0	1227	Grinnell 3 SW	C	Poweshiek	41	43	13	92	44	56	912
Cascade	NE	Dubuque	42	17	56	90	59	54	870	Grundy Center	C	Grundy	42	21	53	92	45	34	1045
Castana Exp. Farm	WC	Monona	42	3	48	95	50	11	1450	Guthrie Center	WC	Guthrie	41	40	7	94	29	50	1075
Cedar Rapids Airport	EC	Linn	41	53	0	91	43	0	868	Guttenberg L & D 10	NE	Clayton	42	47	9	91	5	45	618
Cedar Rapids #1	EC	Linn	42	3	0	91	35	17	810	Hampton	NC	Franklin	42	45	22	93	12	4	1230
Centerville	SC	Appanoose	40	44	11	92	52	9	980	Harlan 1 ESE	WC	Shelby							
Chariton 1 E	SC	Lucas	41	0	59	93	16	45	940	Hastings 4 NE	SW	Mills	41	4	38	95	28	48	1050
Charles City	NC	Floyd	43	3	37	92	40	18	993	Hawarden	NW	Sioux	43	0	11	96	29	6	1190
Cherokee	NW	Cherokee	42	45	26	95	32	16	1180	Holly Springs 1 NW	WC	Woodbury	42	16	49	96	5	46	1100
Clarinda	SW	Page	40	43	28	95	1	19	980	Holstein	WC	Ida	42	29	23	95	32	56	1370
Clarion	NC	Wright	42	43	12	93	44	1	1156	Indianola 4 W	SC	Warren	41	21	56	93	38	53	942
Clinton #1	EC	Clinton	41	47	41	90	15	50	594	Ionia 2 W	NE	Chickasaw	43	2	1	92	30	6	1019
Clutier	C	Tama	42	4	48	92	24	18	900	Iowa City	EC	Johnson	41	36	33	91	30	18	640
Coggon	EC	Linn	42	16	45	91	31	30	903	Iowa City Airport	EC	Johnson	41	37	58	91	32	35	668
Cresco 1 NE	NE	Howard	43	23	22	92	5	38	1255	Iowa Falls	C	Hardin	42	31	8	93	15	13	1051
Creston 2 SW	SC	Union	41	2	14	94	23	39	1320	Jefferson 2 NW	WC	Greene							
Dakota City	NC	Humboldt	42	43	32	94	11	43	1110	Kanawha	NC	Hancock	42	55	52	93	47	36	1185
Davenport Airport	EC	Scott	41	36	42	90	34	54	748	Keokuk L & D 19	SE	Lee	40	23	48	91	22	30	527

OCTOBER 2016		STATION INDEX			OWA CLIMATE REVIEW					OCTOBER 2016		STATION INDEX			OWA CLIMATE REVIEW				
STATION NAME	DIV	COUNTY	COORDINATES			(FT)			STATION NAME	DIV	COUNTY	COORDINATES			(FT)				
			DEG	MIN	SEC							DEG	MIN	SEC					
Keosauqua	SE	Van Buren	40	43	39	91	58	6	592	Postville	NE	Allamakee	43	5	24	91	33	29	1165
Knoxville	SC	Marion	41	19	29	93	6	3	915	Primghar	NW	O'Brien	43	5	11	95	37	45	1520
Lake Mills	NC	Winnebago	43	25	4	93	32	5	1260	Randolph	SW	Fremont	40	52	28	95	34	0	980
Lamoni	SC	Decatur	40	37	24	93	57	3	1128	Rathbun Dam	SC	Appanoose	40	49	30	92	53	33	965
Lamoni Airport	SC	Decatur	40	37	50	93	54	3	1135	Red Oak	SW	Montgomery	41	0	13	95	14	31	1040
Le Claire L & D 14	EC	Scott	41	34	29	90	24	2	577	Remsen #2	NW	Plymouth	42	48	37	95	58	30	1330
Le Mars	NW	Plymouth	42	46	54	96	8	45	1320	Rock Rapids	NW	Lyon	43	25	48	96	10	7	1347
Little Sioux 2 NW	WC	Harrison	41	49	35	96	3	2	1025	Rock Valley	NW	Sioux	43	12	16	96	18	22	1246
Logan	WC	Harrison	41	38	17	95	47	18	1030	Rockwell City	WC	Calhoun	42	23	49	94	37	45	1224
Lorimor	SC	Union	41	7	29	94	3	5	1230	Sac City	WC	Sac	42	25	10	94	58	34	1210
Lowden	EC	Cedar	41	51	23	90	55	48	715	Saint Ansgar	NC	Mitchell	43	22	54	92	55	24	1139
Manchester #2	NE	Delaware	42	28	24	91	27	6	990	Salem 1 S	SE	Henry	40	50	8	91	37	20	650
Mapleton #2	WC	Monona	42	9	43	95	47	1	1200	Sanborn	NW	O'Brien	43	10	45	95	39	37	1551
Maquoketa 4 W	EC	Jackson	42	2	58	90	44	56	782	Sheldon	NW	O'Brien	43	10	51	95	51	10	1420
Marshalltown	C	Marshall	42	3	53	92	55	28	871	Shenandoah	SW	Page	40	46	2	95	22	48	975
Marshalltown Airport	C	Marshall	42	6	38	92	54	58	974	Sibley	NW	Osceola	43	24	17	95	44	54	1529
Mason City	NC	Cerro Gordo	43	9	47	93	11	43	1105	Sidney 1 SSE	SW	Fremont	40	44	10	95	38	35	1140
Mason City Airport	NC	Cerro Gordo	43	9	16	93	19	37	1225	Sigourney	SE	Keokuk	41	20	11	92	12	16	800
Massena	SW	Cass	41	15	19	94	45	54	1325	Sioux Center 2 SE	NW	Sioux	43	3	21	96	9	9	1360
Moline Airport		Rock Island, IL	41	27	55	90	31	24	592	Sioux City Airport	WC	Woodbury	42	23	29	96	22	45	1095
Montezuma 1 W	C	Poweshiek	41	35	1	92	32	59	965	Sioux Falls		Minnehaha, SD	43	34	40	96	45	14	1428
Monticello	EC	Jones	42	14	28	91	10	24	820	Sioux Rapids 4 E	NW	Buena Vista	42	53	35	95	3	55	1420
Mount Ayr	SC	Ringgold	40	42	19	94	14	34	1180	Spener Airport	NW	Clay	43	9	52	95	12	6	1338
Mount Pleasant 1 SSW	SE	Henry	40	56	55	91	33	53	730	Spencer 1 N	NW	Clay	43	9	55	95	8	48	1326
Muscatine	EC	Muscatine	41	24	27	91	4	22	549	Spirit Lake 4 W	NW	Dickinson	43	25	53	95	10	56	1430
Muscatine 2 N	EC	Muscatine	41	28	17	91	3	47	680	Stanley 3 WSW	NE	Buchanan	42	38	0	91	51	48	1114
Nashua 2 SW	NC	Floyd	42	56	13	92	34	13	1059	Storm Lake	NW	Buena Vista	42	38	49	95	11	36	1442
New Hampton	NE	Chickasaw	43	2	43	92	18	44	1148	Strawberry Point	NE	Clayton	42	41	7	91	31	57	1200
Newton	C	Jasper	41	42	42	93	1	47	960	Swea City 4 W	NC	Kossuth	43	24	8	94	22	59	1239
Northwood	NC	Worth	43	26	19	93	13	31	1190	Swisher	EC	Johnson	41	50	59	91	40	35	790
Oakland	SW	Pottawattamie	41	18	16	95	23	4	1260	Toledo 3 N	C	Tama	42	2	8	92	34	50	949
Oelwein 1 E	NE	Fayette	42	40	48	91	52	30	1165	Tripoli	NE	Bremer	42	48	45	92	15	27	960
Omaha Eppley Airport		Douglas, NE	41	18	37	95	53	57	982	Underwood	SW	Pottawattamie	41	23	22	95	40	52	1080
Orange City	NW	Sioux	43	0	2	96	3	14	1380	Vinton	EC	Benton	42	10	13	92	0	28	850
Osage	NC	Mitchell	43	16	46	92	48	38	1170	Wapello	SE	Louisa							
Osceola	SC	Clarke	41	1	10	93	45	1	1028	Washington	SE	Washington	41	16	57	91	42	28	687
Oskaloosa	SE	Mahaska	41	19	17	92	38	48	830	Waterloo Airport	NE	Black Hawk	42	33	16	92	24	4	868
Ottumwa Airport	SE	Wapello	41	6	28	92	26	48	842	Webster City	C	Hamilton	42	28	7	93	47	50	1170
Pella 1 S	SC	Marion	41	22	34	92	55	13	780	Williamsburg 1 E	EC	Iowa	41	39	54	91	59	52	810
Perry	C	Dallas	41	50	22	94	6	38	965	Winterset 1 S	SC	Madison	41	18	22	94	1	6	1104
Pocahontas	NW	Pocahontas	42	43	45	94	39	41	1212	Zearing	C	Story	42	10	1	93	18	35	1116



# REFERENCE NOTES

## DEFINITIONS

STATION NAMES: Name of the city or locality. Figures and letters following the station name indicate the distance and direction from the post office or town community center.

NORMALS: The average of the meteorological element over the period from 1981 to 2010. Normals are calculated by the National Climatic Data Center and are revised once every 10 years. The precipitation and snowfall normals are strictly an average of the values recorded during the 1981-2010 period. However, temperature and degree day normals may have been adjusted to better correspond to the current (as of 2010) temperature measurement practice and thus may vary slightly from the average of the original 30-year values.

DEGREE DAYS: One heating (cooling) degree day is accumulated for each whole degree that the daily mean temperature [average of the daily maximum and minimum air temperature] is BELOW (ABOVE) 65°F. Degree days are used to provide a measure of the effect of temperature upon energy consumption for heating or cooling of homes or buildings. The greater the heating (cooling) degree day total, the greater the amount of energy needed to heat (cool) your home or building.

PRECIPITATION: Values shown in hundredths of an inch are water equivalent totals, i.e., total of liquid (rain) and melted frozen (snow, sleet, hail) precipitation. The snowfall data tables include the unmelted depth of snow and sleet in tenths of an inch. The depth of snow on the ground (SN ON GROUND) refers to the depth of all snow or ice (new or old). This 'Snow on Ground' value is the depth of snow on the ground at the time of the precipitation observation at all stations *except*: Burlington, Davenport, Des Moines, Dubuque, Mason City, Moline, Omaha, Ottumwa, Sioux City and Sioux Falls Airports where the snow depth is measured at 6 a.m. CST while the new snowfall is that for the 24 hour period ending at midnight. Daily precipitation and snowfall amounts are for the 24 hours ending at the time of observation (given in the 'OBS TIME' column). An asterisk in the daily precipitation table indicates that the rain gage was not read that day. A multi-day precipitation total is included in the amount immediately following the asterisks.

TEMPERATURE: The daily maximum (MAX) and minimum (MIN) temperatures are recorded for the 24 hours ending at the time of observation. The significance of the time of observation in interpreting these data is discussed in the preceding paragraph.

TIME OF OBSERVATION: At most locations measurements of temperature and precipitation are made only once daily at the same hour of the day. This time is referred to as the 'Time of Observation' and is given in the 'OBS TIME' column of the data tables. All observations, unless otherwise noted, are for the 24 hour period ending at the time of observation. Note that in most cases the resulting data are not for calendar day (i.e., midnight-to-midnight) periods and further that the temperature observations may be made at a different time than the precipitation observation at the same station. See the PRECIPITATION paragraph in this section for a further explanation of the significance of the time of observation. All times are expressed on a 24-hour clock (i.e., 7 a.m. = 7; 5 p.m. = 17; midnight = 24, etc.).

## SYMBOLS USED IN THE DAILY AND MONTHLY DATA TABLES.

'  ' Underlined data in the daily temperature, precipitation and snowfall tables indicates that the data in question has been estimated. Estimated data are provided when the original measurements are not available or are of suspect accuracy.

*ITALICS.* Data given in italics in the daily precipitation or snowfall tables indicate that the date on which the precipitation was reported has been changed from what was given on the original reports.

'+' A plus sign in the monthly summarized data tables indicates that the temperature or precipitation extreme given also occurred on one or more earlier dates during the month.

BLANK ENTRIES: Blank entries in the monthly summarized data table indicates that no data are available. Blank entries in the daily precipitation and snowfall data tables indicates that no precipitation was recorded. M = missing, no data recorded.

## ABBREVIATIONS:

TMP DEP NOR:	Temperature departure from the 1981-2010 normal.
EXT MAX:	Extreme maximum temperature for the month and the day on which it was measured.
EXT MIN:	Extreme minimum temperature for the month and the day on which it was measured.
MAX 90+:	Number of days with maximum temperatures which were greater than or equal to 90°F.
MAX 32-:	Number of days with maximum temperatures which were less than or equal to 32°F.
MIN 32-:	Number of days with minimum temperatures which were less than or equal to 32°F.
MIN 0°:	Number of days with minimum temperatures which were less than or equal to 0°F.
16/16 SEAS:	2016-2017 season (July 1, 2016 through the end of the published month).
NOR SEAS:	Normal number of degree days through the end of the published month.
DEP NORM:	Monthly precipitation total departure from 1981-2010 normal.
EXT DAY:	Extreme one-day precipitation amount and the day on which it occurred.
.01+:	Number of days with precipitation of 0.01 inch or greater.
.10+:	Number of days with precipitation of 0.10 inch or greater.
1.00+:	Number of days with precipitation of 1.00 inch or greater.
MAX ON GRD:	Maximum depth of accumulated snow on the ground (inches) and the day on which it was measured.
OBS TIME:	Observation Time: The time (24-hour clock) at which the daily temperature and/or precipitation measurement is made (7 = 7 a.m.; 17 = 5 p.m.; 24 = midnight).
DIV:	Climate Division: NW = northwest, NC = north central, etc.
LAT:	Latitude in degrees and minutes north.
LON:	Longitude in degrees and minutes west.
T:	Trace: < 0.005" of precipitation; < 0.05" snowfall or < 0.5" snow on ground.

